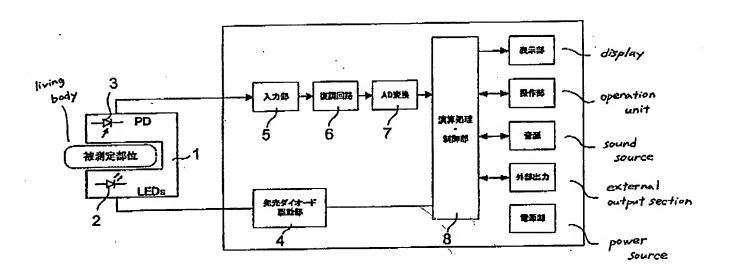
Fig. 1

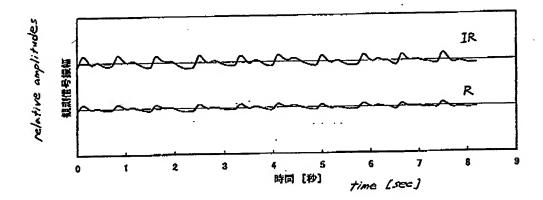
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- 4: LED driver
- 5: input section
- 6: demodulator
- 7: A/D converter
- 8: processor

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Fig. 2A



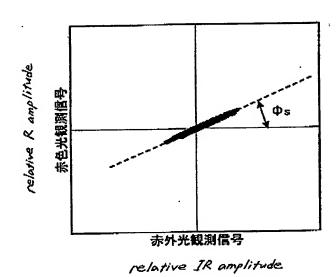
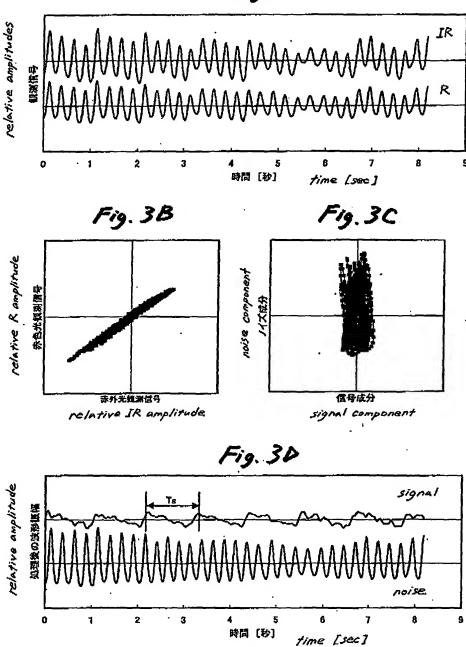


Fig. 2B

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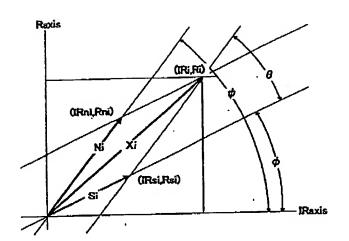
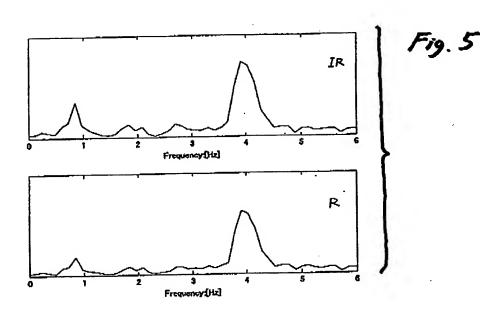
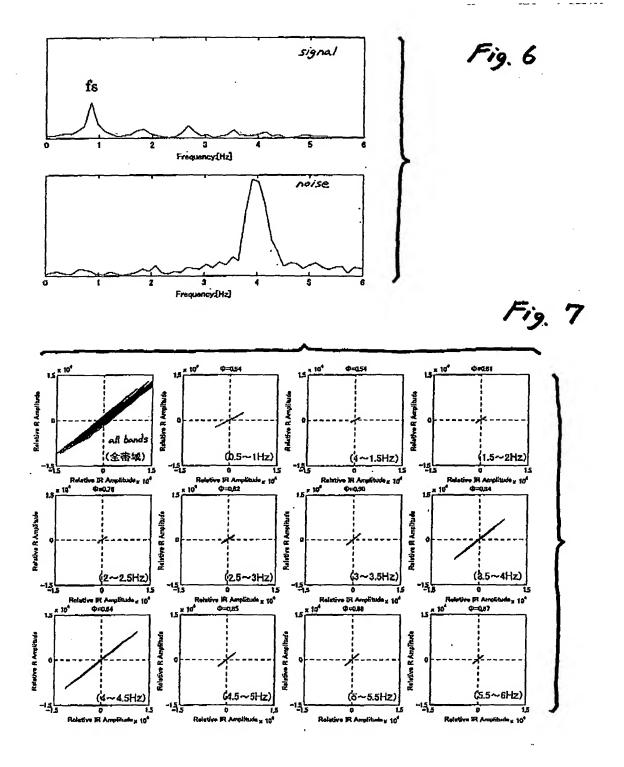


Fig. 4

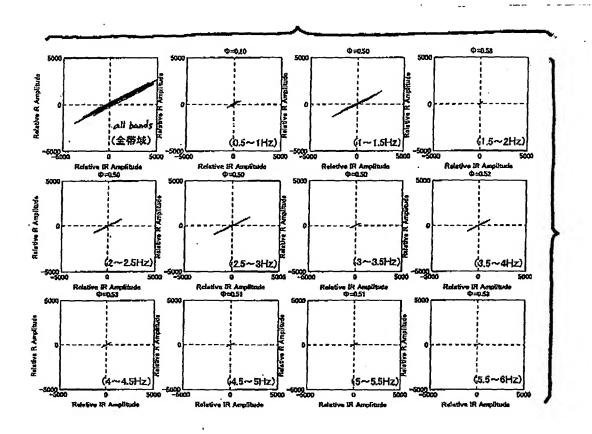


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Fig.8



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Fig. 9

light absorbance ratio 1 light absorbance ratio 2

周波数範囲	吸光度比1	吸光度比2
0.5~1.0Hz	0.52	0.62
1.0~1.5Hz	0.49	0.75
1.5~2.0Hz	0.59	0.68
2.0~2.5Hz	0.71	0.85
2.5~3.0Hz	0.55	0.85
3.0~3.5Hz	0.83	0.99
3.5~4.0Hz	0.81	0.90
4.0~4.5Hz	0.82	. 0.87
4.5~5.0Hz	0.81	0.90
5.0~5.5Hz	0.82	0.97
5.5~6.0Hz	0.83	0.92

frequency range

Fig. 10

frequency light absorbance light absorbance range ratio 1 ratio 2

range	ratio 1	ratio 2
周波数範囲	吸光度比1	吸光度比2
0.5~1.0Hz	0.45	1.14
1.0~1.5Hz	0.49	0.57
1.5~2.0Hz	0.50	0.88
2.0~2.5Hz	0.49	0.56
2.5~3.0Hz	0.49	0.57
3.0~3.5Hz	0.48	0.60
3.5~4.0Hz	0.50	0.58
4.0~4.5Hz	0.52	0.59
4.5~5.0Hz	0.50	0.58
5.0~5.5Hz	0.50	0.58
5.5~6.0Hz	0.51	0.61

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preliminary processing (filtering, logarithmic computation, etc.)

principal component analysis for every divided frequency runge

calculate candidate for oxygen saturation (light absorbance ratio) 83

candidate is single? 33 calculate puíse rate **S**5:

affine transformation (signal-noise separation) . S6:

S8:

calculate pulse rate and evaluate S/N ratio S7: independent component analysis for every divided frequency range calculate candidate for oxygen saturation (light absorbance ratio)

determine values of oxygen saturation and pulse rate **S**10:

measurement is continued?

